

## CLAIMS

1. A planetary-gear transmission configured as a rotating shift transmission with integrated freewheels, comprising input and output elements that as a result of displacement in a plurality of concentric or eccentric positions create varying gear ratios and of which one is configured as a ring gear (10) with at least one tooth ring (11) and the other is configured as a rotor (17), rotating planetary gears (13) with tooth profiles being coupled positively to a tooth ring (11) and in the coupled state torque being transmitted from the input element to the output element, characterized in that each planetary gear (13) is connected to the rotor (17) via a radial segment (15) that is disposed rotatably about an axle (16) it has in common with the rotor.

2. The planetary-gear transmission according to claim 1, characterized in that the radial segments (15) are tapered in the axial direction in the area of the axle (16) and offset from the respectively adjoining radial segments (15), the radial segments (15) preferably mutually meshing, preferably in the area of the axle (16).

3. The planetary-gear transmission according to claim 1 or 2, characterized in that the radial segments (15) are configured

in a multi-level, preferably double-level manner on the axle (16) and/or the other end.

4. The planetary-gear transmission according to any one of claims 1 to 3, characterized in that the radial segments (15) comprise two bores, through which a coupling pin carrying the planetary gear (13) is pushed, on the ends facing away from the axle (16) or in a two-level configuration.

5. The planetary-gear transmission according to any one of claims 1 to 4, characterized in that the radial segments (15) comprise slots, through which the pins (18) of the rotor (17) are guided.

10 6. The planetary-gear transmission according to claim 5, characterized in that the slots of the radial segments (15) are disposed asymmetrically such that a wider bending carrier is created in the direction of torque transmission and a flatter bending carrier in the idle direction.

15 7. The planetary-gear transmission according to any one of claims 5 or 6, characterized in that the pins (18) can rotate freely on flanges (19) of the rotor (17) or that the contact area of the pins (18) to the radial segments (15) has a free rotatory design, preferably due a multi-part configuration, the pins (18) preferably being flattened, so that a surface contact is created

between the radial segments (15) and the pins (18), preferably a surface contact extending across the entire surface.

8. The planetary-gear transmission according to any one of claims 1 to 7, characterized in that the ring gear (10) guides the or each tooth ring (11) in a torsionally flexible, radial and plane parallel manner, preferably via a rubber ring (12).

9. The planetary-gear transmission according to any one of claims 1 to 8, characterized in that a gear stage may comprise two or more parts that are disposed mutually axially offset, with adjoining planetary gears being part of different parts and 10 preferably comprising separate spring systems.